EVENING STAR

by
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HEWSON

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48K ZX Spectrum, ZX Spectrum Plus, ZX Spectrum 128, ZX Spectrum +2 Amstrad CPC 464, CPC 664 and CPC 6128 Commodore 64 and 128 BBC Model B OS 1.2, B+ and Master, Acorn Electron

INTRODUCTION

Welcome to the "Evening Star", the second steam locomotive simulation from Hewson. The "Evening Star" was one of the most powerful steam locomotives of the British Railways fleet, one of the legendary BR9F Class, pulling its passenger train over the undulating countryside of the old Somerset and Dorset line between Bath and Bournemouth. You must take the roles of both Fireman and Driver. There are many levels of simulation. We suggest you read the instructions carefully then watch the computer demonstration for a few minutes. Study the control settings and then attempt the Training Run. Gradually you will improve your skill and will eventually be able to take the "Evening Star" to Bournemouth in accordance with the timetable, using the coal and water available to the optimum efficiency.

To load the game follow the instructions below for your make of computer and wait until the main menu appears on the screen. Note that after about one minute the computer will automatically select a high speed run showing the whole of the line. To return to the main menu press X.

LOADING

Spectrum Cassette
48K ZX Spectrum, ZX Spectrum Plus or ZX Spectrum 128 with cassette player, ZX Spectrum +2.

You are advised to disconnect all hardware from the rear edge connector. Unless using a ZX Spectrum +2 connect a cassette player to the computer in the usual manner. ZX Spectrum +2 and 128 users should select 48K mode. Rewind the cassette if necessary, enter LOAD " " on the computer keyboard and press the ENTER key. Press the Play key on the cassette player. The game takes a few minutes to load.

Amstrad Cassette
Amstrad CPC 464
Amstrad CPC 664 or Amstrad CPC 6128 with cassette player and suitable leads.

Amstrad CPC 664 and CPC 6128 users should connect a cassette player to the computer and enter | tape and press the ENTER key. Place the cassette in the player, rewind if necessary and press the CTRL and ENTER keys. Press the Play key on the cassette player and then any key on the computer keyboard. The game takes a few minutes to load.

Amstrad Disc
Amstrad CPC 6128 or Amstrad CPC 664
Amstrad CPC 464 with disc drive

Amstrad CPC 464 users should connect a disc drive to the computer and enter | disc and press the ENTER key. Place the disc in the drive and enter run "disc and press the ENTER or RETURN key. The game takes a few seconds to load.

Commodore Cassette
Commodore 64 or Commodore 128 with suitable cassette player.

Connect the cassette player to the computer, place the cassette in the player and rewind if necessary. Press the SHIFT and RUN/STOP keys on the computer keyboard and press the Play key on the cassette player. The game takes a few minutes to load.

Commodore Disc
Commodore 64 or Commodore 128 with disc drive.

You are advised to disconnect all hardware from your computer. Connect the disc drive to the computer and place the disc in the drive. Enter LOAD "*", 8, 1 and press the RETURN key. The game takes a few seconds to load.

BBC and Electron Cassette
Connect the cassette player to the computer, place the cassette in the player and rewind if necessary. Enter CH. " " and press the RETURN key. Press the Play key on the cassette player. The game takes a few minutes to load.

BBC Disc
Connect the disc drive to the computer and place the disc in the drive. Press the SHIFT and BREAK keys together. The game takes a few seconds to load.

GETTING STARTED

Selecting the Demonstration

Load the program in the usual way and press key 0 when the main menu appears and then press the RETURN key when the timetable is displayed. The locomotive will pull slowly away from Bath, accelerating down the line on a local non-stop train to Evercreech Junction. Observe the various controls and study the readings on the gauges. Press CTRL+X to return to the main menu (on the Spectrum press CAPS SHIFT+X).

HIGH SPEED RUN

If RETURN is pressed when the main menu appears the program executes a High Speed Run along the entire line. You will be able to see all the features along the way pass in quick succession. To exit press X.

STARTING A TRAINING RUN

Press 1 when the main menu appears and 1 again for the locomotive control menu. This will give you control of the Regulator, Cut Off and Brake only. The remainder of the controls will be adjusted by the computer. Read the schedule displayed and then press RETURN.

With the locomotive standing at Bath Station open the Cut Off fully by pressing C four times. Half open the Regulator by pressing R twice. After 15 seconds or so the locomotive will pull slowly along the platform and out of the station.

Observe your speed display and when you are travelling at four miles per hour or faster press R twice more to open the regulator fully. The locomotive will then accelerate more rapidly as it moves past the Gasometer and up the steep incline of Devonshire Bank. If you open the regulator too soon the locomotive driving wheels will slip on the running rails leading to a loss of speed and wasting steam (this is indicated by a sudden increase in the sound speed).

You may have noticed that when the computer has total control on the Demonstration run that it reduces the Cut Off when the train is moving. This uses steam more efficiently and you should do the same to conserve as much steam as possible to enhance your Economy rating at the end of the run.

To exit from a Training Run (or any other run except the high speed) press CTRL+X (on the Spectrum use CAPS SHIFT+X).

SCREEN LAYOUT

The main part of the screen is the view of the cab, the controls and the line ahead. Above this is a sign naming the next station or line feature that you will encounter. Below is the message area to relay important information to you, the driver. To the side of the view screen is various control information including your speed, the amount of coal and water remaining, the status of the next signal, the current gradient and the profile for the next 1½ miles, the actual time and the position of the locomotive relative to Bournemouth and to Bath Junction which is ½ mile from Bath Station. Historically, it is from this position that all mileages are measured on the Somerset and Dorset line.

THE CONTROL KEYS

Locomotive Control Keys

CONTROL	INCREASE SETTING	DECREASE SETTING
Regulator	R	SHIFT+R
Vacuum Brake	V	SHIFT+V
Cut Off	C	SHIFT+C
Blower	B	SHIFT+B
Injector	I	SHIFT+I
Firedoor	F	SHIFT+F
Damper	D	SHIFT+D
Sound Whistle	W	
Stoke Fire	RETURN/ENTER	

Spectrum users note that SHIFT refers to Symbol Shift

Program Control Keys

FUNCTION	KEY
Toggle between accelerated and real-time	A
Toggle between smoke on and off	S
Return to main menu	CTRL+X (or CAPS SHIFT+X)
Hold, wait for RETURN/ENTER to restart	H
Display timetable	T
Acknowledge message	SPACE BAR
Increase engine noise	N
Decrease engine noise	SHIFT+N

N.B. Noise controls are only on computers without external volume controls.

To enable you to judge whether or not you are burning your coal efficiently the following keys may be pressed to simulate the various states of combustion.

Smoke Demonstration Keys

SMOKE LEVEL	KEY
Very light smoke – far too much air	1
Light smoke – too much air	2
Correct smoke level	3
Dark smoke – insufficient air	4

MENUS, MESSAGES AND SPEED LIMITS

The Main Menu

LEVEL	SUMMARY
RETURN	High Speed Run – Selected automatically after 1 minute
0	Computer Demonstration–Computer controlled non-stop run to Evercreech Junction
1	Training Run – Identical run and schedule to level 0 with you in control
2	Local non-stop run with added complication of speed limits
3	Local stopping train with speed limits and signals to contend with
4	Full line stopping train to Bournemouth with speed limits and signalling
5	Try to break the record for the fastest non-stop run to Bournemouth
6	Drive the prestige "Pines Express" to Bournemouth, time errors are marked severely
7	Any schedule with extra problems

Speed Limits

HAZARD	LIMIT
Permanent Way Working	30 mph
Passing from single to double track or vice versa	40 mph
Passing or near Siding, Junction or Loop	40 mph
Overall line limit speed	70 mph

Note that excessive violation of the 40 mph or 70 mph limits will result in derailing the Train.

Error Messages

ERROR MESSAGE	MEANING
FATAL ERRORS	
Fusible plugs gone	Water level in the boiler too low
Boiler overfill	Water level in the boiler too high
Overran stop signal	Passing a stop signal in the down position
Unsafe reversing	Allowing the train to run backwards
Blowback	Failure to open the Blower in a tunnel or when the regulator is shut
Derailed	Excessive violation of speed limit
Crashed at B'mouth	Hit buffers at too high a speed
Collision	Colliding with oncoming train in single line section due to lack of token
NON-FATAL ERRORS	
Poor stop at	Failing to stop close enough to the far end of the platform

Short stop at	Failing to stop for the full 60 seconds minimum at a station
Rough stop at	Using vacuum brake setting 3 or above when coming to a halt at a scheduled station
No stop at	Failing to stop at a scheduled stopping station
No whistle at	Failing to blow whistle before starting off, or before a tunnel or permanent way work
Hit buffers at	Failing to come to a halt before the buffers when arriving at Bournemouth
Em brakes at	Using vacuum brake setting 4 (maximum)
Speeding near	Failure to observe speed limit
No token at	Failure to pick up token upon entering a single line section, because of excessive speed

RUN OPTIONS IN DETAIL

Option 0 Computer Demonstration Run

This run demonstrates the various techniques required to drive the locomotive with the computer running all controls on a local non-stop run to Evercreech Junction. You are advised to study the various settings used to help you learn correct driving methods. Should you wish to hold the run at any stage you can do so by pressing "H" which will stop the run and await the press of RETURN (or ENTER if that is the key on your computer). Also you can accelerate the run so that time passes four or five times quicker than normal by pressing "A" (note the rapid movement of the clock display). Press "A" again to return to normal. This is useful during some of the longer stretches of the run. You have control over whether or not the smoke is displayed by pressing "S".

Option 1 Training Run

A practice session for the novice driver/fireman with the same schedule as the computer demonstration. You are expected to adhere to the timetable exactly. Any deviation from the times shown will be penalised at the end of a run in the time score. You can halt the program to consult the timetable at any time by pressing "T". The timetable with any completed times will be displayed. From this part of the program you can also check for any errors by pressing "E" or save the position of the run to date by pressing "S" (see the section on Saving and Loading a run). A short beep is sounded to assist you when the computer records a time for the timetable. Note that the times shown on the timetable are minutes only. It should be apparent from the time displayed to which hour each refers.

When arriving at Evercreech Junction you must bring the train to a halt near to the end of the platform so that all your passengers may alight safely. You must also bring the train to a halt without the use of heavy braking. Emergency braking (maximum braking) should not be used at any time due to the risk to your passengers and will result in a loss of safety score.

You will be penalised for any mismanagement of locomotive controls that you have elected to control yourself. Correct methods of use are detailed in the accompanying notes "How a Steam Locomotive Works" and all such methods are practiced by the computer when it has control.

At the end of a run your performance is assessed with regard to economy, safety and timekeeping. A result of 70% overall is considered acceptable. The economy assessment is based upon the stocks of coal and water remaining. The page of errors and events can, once again, be displayed in place of the timetable by pressing "E".

If by some misfortune you have committed a fatal error and the run has been terminated before the end of the timetabled run, you may resume the run from the point of catastrophy by pressing "R". Timekeeping and economy assessments are unaffected by the premature end, but safety will be zero. Upon resumption of a run, the computer will have taken some action to prevent an immediate recurrence of whatever problem you have encountered. However, you may have to take some more permanent action to prevent further mishap.

Option 2 Short non-stop with Speed Limits

A train on a non-stop local run, where speed limits are in force at many places down the line. Each one is associated with a line feature, and can be identified visually. The position of each is shown on the gradient profile by the letter S or by the change in track type. The major speed limits are of 40 mph and they are associated with positions where the track splits from single to double or vice versa, near junctions where another track can be seen joining the main line, or where there is a siding beside the track or a passing loop (characteristic of some single line stations). Failure to observe these limits will result in a loss of safety marks and in extreme cases derailment.

There is another form of speed limit also of 40 mph in that you must enter each section of single track at or below that speed. This is so that a "token transfer" may take place, the "token" being an object which is held by a particular train to ensure that only one train at a time may use a single track section. Failure to achieve token transfer is dangerous as you run the risk of collision with an oncoming train. When successfully held the token is shown at the top right of the cab.

Whilst passing near permanent way work you are expected not to exceed 30 mph. Passing at speeds in excess of this will result in a loss of safety marks but there is no derailment risk. Permanent way working affecting the line will be notified at the start of the run.

There is an overall limit of 70 mph for the entire line.

Option 3 Short Stopper and Signalling

In addition to the speed limits of Option 2 you must also obey all signals and make the stops demanded by the timetable.

Signals divide the line into sections so that trains on the same line run at an adequate distance from each other. There are two types of signal used on this line, stop (with a square end) and distant (with a notched end). Each has two posi-

Option 3 – *continued*

tions; up for clear and down (horizontal) for stop or caution. Stop signals may come singly or in groups.

You must not pass a stop signal in the down (stop) position. To give warning of the condition of the stop signal a distant signal is placed a suitable distance before it. It will be down (caution) if the stop signal to which it refers is down i.e. at the stop position.

In order for you to have the maximum time to react the state of the next signal to be passed is reproduced separately in the signal section of the screen.

The stations at which you are scheduled to stop are shown in capital letters on the timetable. You must attempt to stop close to the far end of the platform once again without excessive braking. Should you pass the end of the platform before the train has come to a halt a beep will sound and you will be assessed as not stopping at a required station and you will be penalised as such.

You must arrive at the station in good time to allow at least one minute for your passengers to embark and disembark. If the computer is controlling the whistle, it will sound exactly one minute after arrival. Should you be in control of the whistle you must ensure that it is blown before setting off. The timetable gives the required departure time.

Option 4 Long Stopper

A train which runs the entire length of the line from Bath to Bournemouth with intermediate stops. All the constraints of previous options apply.

Option 5 Record Run

This is a full line non-stop train with a timetable that will allow you to complete the journey to Bournemouth in record time. Any run which arrives at Bournemouth on time can be considered good. Arriving early is outstanding.

Option 6 Pines Express

This is the premier train to run the line. You are expected to maintain the prestige of the Railway company and adhere to the timetable scrupulously. Any errors in this area will be more severely punished than usual.

Option 7 Problem Run

You will be presented with any timetable, all constraints apply. However, you will also have another serious problem to contend with to make your task a little more difficult. You may be passed a message below the main screen. Once read it can be acknowledged (and therefore wiped) by pressing the space bar.

SAVING AND LOADING A RUN

Because a complete run can take in excess of 2 hours in real time we have given you the facility to save the current position to reload later. This is done from within a run by pressing "T" then "S" when prompted.

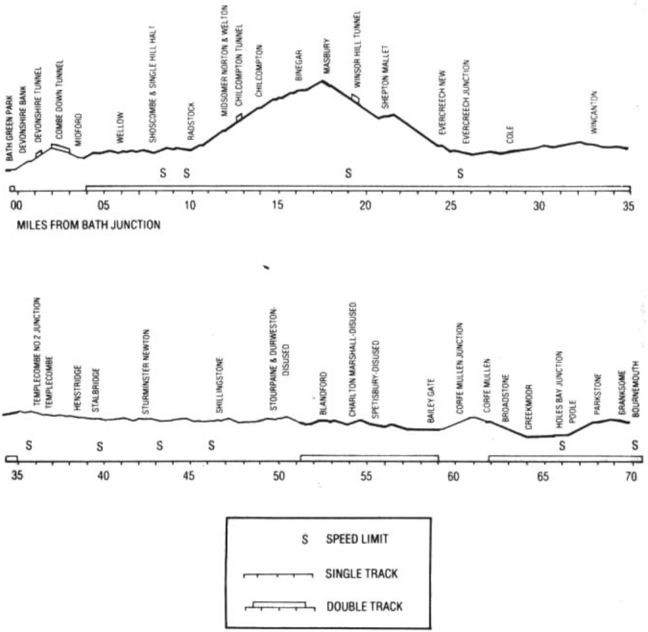
Disc users are further prompted to type in a file letter (A to Z) by which this particular run can be identified.

Tape users are recommended to ensure that the tape is beyond any leader section at the beginning of a tape before attempting to record a run. Failure to do this may result in the run not being successfully recorded.

MACHINE NOTES

Acorn Electron: Because of the amount of memory space taken up by "Evening Star" it has been necessary to use some of the memory needed for the Plus 1 interface. Consequently, "Evening Star" will run on the Electron with Plus 1 connected but the save and load feature will not work.

BATH GREEN PARK TO BOURNEMOUTH WEST GRADIENT PROFILE



EVENING STAR HISTORICAL NOTES

On the 8th September 1962 the locomotive "Evening Star" pulled the "Pines Express" from Bournemouth to Bath and back. This was the last time this train took the route over the Somerset and Dorset line to Bath, it being subsequently diverted via Reading and Basingstoke. This diversion of traffic from the Somerset and Dorset line sealed the demise of the line which was closed in 1966. This was the end of a picturesque and much loved railway with a long and glorious past.

The Somerset and Dorset line's history starts in 1852 when the then Somerset Central Railway was building its line from Burnham-on-Sea to Glastonbury. They built a pier at Highbridge on the Bristol Channel and so had steamboat connections for both passengers and freight to the industries of Southern Wales. Meanwhile the Dorset Central Railway was building a line from Wimborne, north-west to Blandford.

In 1862 the two companies merged to form the Somerset and Dorset Railway, extending the existing lines to meet at Cole. The company thus achieved its primary objective of having a coast to coast route from Highbridge on the Bristol Channel to Poole on the English Channel. At one time the company offered services from South Wales and Bristol to Cherbourg, via its line to the English Channel and thence by steamship. Traffic, although adequate, was not sufficient to financially secure the line so the company looked at other areas from which to attract traffic.

This led to the building of what was then called the "Bath Extension", a branch off the then mainline over the Mendip Hills to Bath connecting with the recently built Midland Railway station there. The S & D, although already financially hard pressed, managed to complete the line in only 2 years but because of cost it was built as single line only. The new line involved many tunnels, viaducts and earthworks in contrast to the existing line. It did however run through the North Somerset Coalfield, thus giving the company access to mineral traffic.

On the 20th July 1874 the first S & D train used Bath station and the company's new North-South route was complete. It was at this time that the company first acquired the label Slow and Dirty (for S & D) which stuck with it to the end and is still familiar today (although it had also been dubbed "Swift and Delightful" but never so often).

Traffic on the new route was good but the company, after its extension to Bath, was financially exhausted and in 1875 they had no alternative but to ask wealthier neighbours to buy it out. The Great Western Railway (who controlled many of the adjacent areas to the North and West) was approached as was the London and South Western Railway (who controlled the areas to the South and East, most importantly where the S & D crossed the L & SWR at Templecombe and at Wimborne where they connected for the last miles to Poole and Bournemouth).

The L & SWR saw the Midland Railway as a better partner with which to run the line, having the line North from Bath from the S & D's line. The L & SWR and the MR thus jointly leased the S & D

line, leaving the GWR somewhat aggrieved at being left out, and the S & D became the S & D Joint Railway.

In 1923 the railway companies of Britain merged into four large companies. The MR became part of the London Midland and Scottish Railways and the L & SWR became part of the Southern Railway. Thus the line was still jointly run, the LMS taking responsibility for the locomotives and stock and the SR for the track and signalling. By this time Bath to Bournemouth had become the main line, with doubling of track where possible, and the Highbridge line was reduced to a branch. Trains from the North to the South would route via Bath then over the S & D to the South coast and Bournemouth as the town and resort grew in importance. The "Pines Express" originated in Manchester and took its name from the Pine trees of the Bournemouth area.

The section from Bath to Bournemouth over the S & D started with a climb up and over the Mendip hills to Evercreech. The trains often had many coaches (especially in summer) and needed two locomotives to get them up and over. At Bath this could be a helper or "Banker" at the rear of the train to help with the climb up Devonshire bank. It would drop off at the top and return to Bath. More commonly with passenger trains two locos would be coupled at the front for the trip to Evercreech Junction where one would be uncoupled and used to assist trains over the Mendips in the other direction. "Double heading" was very expensive in terms of locos and men but unavoidable because of the steep gradients in that section of line.

Another factor affecting the line in the latter years was the seasonal nature of its traffic. In winter the line was adequate for its task and coped with its local and freight traffic, the various single line sections not proving a problem. However, during the summer season (at weekends in particular) trains from all over Northern England would be using the line requiring "double heading" over the Mendips and every available loco was pressed into service. This high loading inevitably caused delays on the single line sections and so perpetuated the reputation of the line for being "Slow and Dirty".

In 1960 a class of locomotive new to the line was tested. This was one of the 9F British Rail standard types, one of a range of BR locomotives designed and built after nationalisation in 1948. The new locos were aimed at improving operating efficiency and ease of maintenance, and were to be used throughout BRs network. The 9F was designed and built as a heavy freight locomotive and first ran in 1954. They were arguably the most successful of BRs standard types with over 200 examples being built. The 9F was to be tried on the S & D not as a freight loco but as a passenger locomotive to see if it could pull, "single headed", the heavy passenger trains of the summer thereby eliminating "double heading". The trial took place in March 1960 and was a great success, four 9Fs then being allocated to Bath for the summer.

In this class of locomotive many saw the saviour of the line but the 9Fs could never be fully

utilised for several reasons. Firstly its size. Such a powerful locomotive was too big for the turntables of the S & D and so was not useful for the freight trains to Evercreech. Secondly, because of its freight train origins it had no facility to provide heating for the coaches it pulled and was therefore limited to summer use only. In the final summers of through train operation on the S & D the 9F made light work of the "Pines Express" single handed. It is worth noting that it was no easy task for the fireman on such a locomotive to keep the fire's appetite for coal satisfied.

In 1962 the last 9F of the class was sent to Bath shed to haul the last "Pines Express" over the S & D. This was 92220 Evening Star built in the Swindon works and delivered to BR in 1960. After the summer of 1962 the "Pines Express" although still run was routed away from the S & D, as were many other through trains. Local services survived but the line was being groomed for closure. In 1965 its terminus at Bournemouth West was closed and later demolished. In 1966 after much acrimony the entire line was closed completely.

No part of the original S & D line now exists but its spirit is kept alive by a preservation group now based on the West Somerset Railway at Washford – The Somerset & Dorset Railway Trust. 1987 is the 125th anniversary of the S & D. "Evening Star" has been preserved and still pulls enthusiasts' trains but not, sadly, over the S & D. The station at Bath – Green Park has also survived and has been preserved, the track bed now being used as a car park for a supermarket.

CREDITS

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